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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/742,657	12/21/2000	Hidenori Nishikawa	JP9 1999 0204 US1	6991

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Hoffman, Warnick & D'Alessandro LLC  
Three E-Comm Square  
Albany, NY 12207

EXAMINER

MAHMOUDI, HASSAN

ART UNIT

PAPER NUMBER

2175

DATE MAILED: 09/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/742,657	NISHIKAWA, HIDENORI	
	Examiner	Art Unit	
	Tony Mahmoudi	2175	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All   b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and 121.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                 | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____   |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)        | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ | 6) <input type="checkbox"/> Other: _____                                    |

**DOV POPOVICI**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**

## DETAILED ACTION

### *Specification*

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The Abstract must have a maximum of 150 words.

Correction is required.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Oulid-Aissa et al (U.S. Patent No. 5,835,757.)

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As to claim 1, Oulid-Aissa et al teaches a database system, for storing and managing data that are used by application programs to execute a specific operation (see Abstract), comprising:

a hierarchical node database (see column 4, lines 12-20, and see column 22, lines 4-11) wherein data used for the application programs are stored as node data in data records (see column 26, lines 14-23); and

a hierarchical link table (see figure 16, where “link table” is illustrated as “indirection table”), provided for each of the application programs, wherein relationship data, which define the hierarchical structure of the node data that are stored in the hierarchical node database, are stored as data entries in the data records (see column 27, lines 49-58.)

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oulid-Aissa et al (U.S. Patent No. 5,835,757) in view of Delia et al (U.S. Patent No. 6,249,789.)

As to claim 2, Oulid-Aissa et al teaches hierarchical link table (see figure 16, where “link table” is illustrated as “indirection table”.)

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Oulid-Aissa et al does not teach wherein effective period data that define effective periods for the data records are stored as data entries in the data records.

Delia et al teaches a method of calculating time-sensitive work (see Abstract), in which he teaches effective period data that define effective periods for the data records are stored as data entries in the data records (see column 2, lines 22-36, and see column 9, lines 49-51.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Oulid-Aissa et al to include wherein effective period data that define effective periods for the data records are stored as data entries in the data records.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Oulid-Aissa et al by the teaching of Delia et al, because having effective period data that define effective periods for the data records are stored as data entries in the data records, would enable the system to determine time-sensitive values for a user function, based on the effective periods of time the user is associated with a particular set of data.

As to claim 3, Oulid-Aissa et al as modified teaches wherein, in the hierarchical node database (see Oulid-Aissa et al, column 4, lines 12-20, and see column 22, lines 4-11), the effective period data that define the effective periods for the data records are stored as data entries in individual data fields (see Delia et al, column 5, lines 44-59, and see column 6, line 56 through column 7, line 19.)

As to claim 4, Oulid-Aissa et al as modified teaches wherein each of the data records in the hierarchical node database includes a fixed-length column in which only data entries having a constant size are stored, and a variable-length column in which only data having variable sizes are stored (see Oulid-Aissa et al, column 11, lines 61-67, where “fixed length column” and “variable-length column” are read on “providing a variable format where any list of attributes can be specified on either a read or write”.)

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oulid-Aissa et al (U.S. Patent No. 5,835,757) in view of Delia et al (U.S. Patent No. 6,249,789) as applied to claims 2-4 above, and further in view of Fujiwara (U.S. Patent No. 5,701,457.)

As to claim 5, Oulid-Aissa et al as modified still does not teach the database system further comprising a cycle control table in which cycle data are entered to define execution timings for the application programs that execute operations at constant time intervals.

Fujiwara teaches a method for time interval reservation access (see Abstract), in which he teaches the database system (see column 6, lines 14-19) further comprising a cycle control table (see column 3, lines 23-25, where “control table” is read on “a table for managing”) in which cycle data are entered to define execution timings for the application programs that execute operations at constant time intervals (see column 9, lines 31-33, and see column 10, lines 23-25.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Oulid-Aissa et al as modified to include the database system further comprising a cycle control table in which cycle data are entered to

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define execution timings for the application programs that execute operations at constant time intervals.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Oulid-Aissa et al as modified, by the teaching of Fujiwara, because the database system further comprising a cycle control table in which cycle data are entered to define execution timings for the application programs that execute operations at constant time intervals, enables the user to automate the execution of the desired database functions by setting time periods in a table within the database to control the timings at which the desired functions need to be executed for desired clients, as opposed to manually executing such functions.

### *Conclusion*

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of art with respect to database management systems with hierarchical links, and database time-interval based execution automation in general:

U.S. Patent No. 6,272,495 to Hetherington.

U.S. Patent No. 6,189,012 to Mital et al.

U.S. Patent No. 6,112,024 to Almond et al.

U.S. Patent No. 5,666,554 to Tanaka.

U.S. Patent No. 5,826,250 to Trefler.


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9. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Tony Mahmoudi whose telephone number is (703) 305-4887. The examiner can normally be reached on Mondays-Fridays from 08:00 am to 04:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici, can be reached at (703) 305-3830.

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August 29, 2002

  
DOV POPOVICI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100